



1FW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Group Art Unit 1614

In re Patent Application of

Thomas H. Barrows, et al.

Application No. 10/810,518

Confirmation No.: 1213

Filed: March 26, 2005

Examiner: Unknown

"TISSUE ENGINEERED BIOMIMETIC
HAIR FOLLICLE GRAFT"

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT
PURSUANT TO 37 CFR §1.97(b)

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

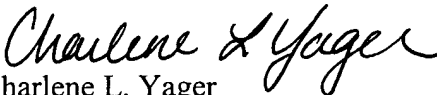
Sir:

The Examiner's attention is directed to the references which are listed on the attached Form PTO/SB/08A and/or PTO/SB/08B and copies of non-U.S. patent references are attached.

Citation of these references is respectfully requested.

No concession is made that these documents are prior art, and Applicant expressly reserves the right to antedate the documents as may be appropriate.

Respectfully submitted,


Charlene L. Yager
Reg. No. 48,887

File No. 010414-9012 US00

Michael Best & Friedrich LLP
One South Pinckney Street
P. O. Box 1806
Madison, WI 53701-1806
608.257.3501

Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/810,518
				Filing Date	March 18, 2005
				First Named Inventor	Thomas H. Barrows
				Group Art Unit	1614
				Examiner Name	Unknown
Sheet	1	of	1	Attorney Docket Number	010414-9012- US00

U.S. PATENT DOCUMENTS

Examiner Initials	U.S. Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document
	3596292	Erb et al.	08/1971
	5061284	Laghi	10/1991
	5194473	Shinoda et al.	03/1993
	5611811	Goldberg	03/1997
	5723508	Healey et al.	03/1998
	6474344	Yamada	11/2002
	6503539	Gestrelus et al.	01/2003
	11/107230	Barrows	04/2005
	11/203804	Barrows	08/2005

FOREIGN PATENT DOCUMENTS

Examiner Initials	Country Code	Foreign Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Translation	English Abstract

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer. Patent and Trademark Office, Washington, DC 0231.

DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/810,518
				Filing Date	March 18, 2005
				First Named Inventor	Thomas H. Barrows
				Group Art Unit	1614
				Examiner Name	Unknown
Sheet	1	of	5	Attorney Docket Number	010414-9012-US00

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
		ARASE, S. et al., "Co-culture of human hair follicles and dermal papillae in a collagen matrix," J. Dermatol. (1990) 17:667-676
		ARIAS, AM and Stewart A. (2002) Molecular Principles of Animal Development Oxford University Press, Oxford
		ATALA A, & Lanza RP, eds (2002). Methods of Tissue Engineering, Academic Press, NY
		ATALA A. (2004) Tissue engineering and regenerative medicine: concepts for clinical application. Rejuvenation Res 7:15 – 31.
		BIEBERICH et al., "Differential expresion of the Hox 3.1 gene in adult mouse skin" Ann NY Acad Sci (1991) 642:346-354
		CHASE, H.B. et al., "Changes in the skin in relation to the hair growth cycle" The Anatomical Record, The Wistar Institute of Anatomy and Biology, Philadelphia, PA (1953) 116:75-81
		CLARK et al., 1988, Mol. Cell. Biol. Of Wound Repair, Plenum Pub., Co. New York
		COULOMBE, P.A. and OMARY, M.B., "Hard and soft principles defingn the structure, function and regulation of keratin intermediate filaments" Curr Opin Cell Biol (2002) 14:110-122
		DRY, F.W., "The coat of the mouse (Mus musculus)," J. Genetics, Bateson and Punnett eds., (1926) 287-340

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/810,518
				Filing Date	March 18, 2005
				First Named Inventor	Thomas H. Barrows
				Group Art Unit	1614
				Examiner Name	Unknown
Sheet	2	of	5	Attorney Docket Number	010414-9012-US00

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS		
Examiner Initials		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
		FIESER, L.F. and FIESER, M., "Reagents for Organic Synthesis," John Wiley and Sons, Inc. (1967) 704-706
		GHARZI et al., "Plasticity of hair follicle dermal cells in wound healing and induction," Exp. Dermat. (2003) 12:126-136
		GILBERT, S.F., "Development of the tetrapod limb," Developmental Biology, Sinauer Associates, Inc. (2000) 503-521
		GURDON, J.B. "The localization of an inductive response" Development (1989) 105:27-33
		HANDJISKI, B.K. et al., "Alkaline phosphatase activity and localization during the murine hair cycle" Br J Dermatol (1994) 131:303-310
		HANSEN, L.S. et al., "The influence of the hair cycle on the thickness of mouse skin" Anat Rec (1984) 210:569-573
		HASHIMOTO et al., "Histological examination of human hair follicles grafted onto severe combined immunodeficient (SCID) mice," Hair Research for the Next Millenium eds., DJJ Van Neste and VA Randall, Elsevier Science BV, Amsterdam (1996) 141-145
		JAHODA, C.A.B. et al., "Hair follicle dermal cells differentiate into adipogenic and osteogenic lineages," Exp. Dermatol. (2003) 12:849-859
		KANZLER, B. et al., "Differential expression of two different homeobox gene families during mouse tegument morphogenesis," Int. J. Dev. Biol. (1994) 38:633-640

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231.
DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/810,518
				Filing Date	March 18, 2005
				First Named Inventor	Thomas H. Barrows
				Group Art Unit	1614
				Examiner Name	Unknown
Sheet	3	of	5	Attorney Docket Number	010414-9012-US00

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
		KATAYAMA, S. et al., "Synthesis of Alternating Polyamide Esters by Melt and Solution Polycondensations of N,N'-Di(6-hydroxycaproyl) dimines and N-6-Hydroxycaproyl Aminoalcohol with Terephthalic and Adipic Dimethyl Esters and Dichlorides" J. of Applied Polymer Science (1976) 20:975-994
		KAUFMAN, C.K. et al., "GATA-3: an unexpected regulator of cell lineage determination in skin," Gene Dev (2003) 17:2108-2122
		MA, L. et al., "Cyclic alopecia in Msx2 mutants: defects in hair cycling and hair shaft differentiation" Development (2003) 130:379-389
		MESSENGER, "Hair Follicle Tissue Culture" Br. J. Dermatol. (1985) 113:639-640
		MILLS, A.A. et al., "p63 is a p53 homologue required for limb and epidermal morphogenesis," Nature (1999) 398:708-713
		MOSCONA, A., "Rotation-mediated histogenetic aggregation of dissociated cells. A quantifiable approach to cell interactions in vitro," Exp. Cell Research (1961) 22:455-475
		PAUS, R. et al., "Telogen skin contains an inhibitor of hair growth," Brit J Dermatol (1990) 122:777-784
		PHILPOTT, M. et al., "In vitro maintenance of isolated hair follicles: current status and future development," Ex. Dermatol. (1999) 8(4):317-319 Abstract
		PISPA, J. and THESLEFF, I., "Mechanisms of ectodermal organogenesis," Dev Biol (2003) 262:195-205

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/810,518
				Filing Date	March 18, 2005
				First Named Inventor	Thomas H. Barrows
				Group Art Unit	1614
				Examiner Name	Unknown
Sheet	4	of	5	Attorney Docket Number	010414-9012-US00

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS		
Examiner Initials		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
		POWELL, B.C. et al., "The Notch Signalling pathway in hair growth" Mech Dev (1998) 78:189-192
		PROUTY, S.M. et al., "Fibroblast-dependent induction of a murine skin lesion similar to human nevus sebaceus of jadassohn," Lab. Invest (1997) 6(2):179-189
		PROUTY, S.M. et al., "Fibroblast-dependent induction of a murine skin lesion with similarity to human common blue nevus" Am J Pathol. (1996) 148(6):1871-1885
		SAMBROOK et al., 1989, Molecular Cloning: A Laboratory Manual, Cold Spring Harbor Laboratory, New York
		SCHOLER, H.R. et al., "A family of octmer-specific proteins present during mouse embryogenesis: evidence for germline-specific expression of an Oct factor," EMBO J (1989) 8(9):2543-2550
		SCHWARZ, M.A. et al., "Epithelial-mesenchymal interactions are linked to neovascularization" Amer J Respir Cell Mol Biol (2004) 30:784-792
		STENN et al., "Re-epithelialization," Chapter 14 in: The Molecular and Cellular Biology of Wound Repair, Eds, RAF Clark, Plenum Press (1988) 321-335
		STENN, K. et al., "Growth of the Hair Follicle: A Cycling and Regenerating Biological System," The Molecular Basis of Epithelial Appendage Morphogenesis, ed. C-M Chuong, Landes Publ. Austin TX (1998) 111-130
		TAKEDA, A. et al., "Histodifferentiation of hair follicles in grafting of cell aggregates obtained by rotation culture of embryonic rat skin" Scand J. Plas Reconstr Hand Surg (1998) 32:359-364

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/810,518
				Filing Date	March 18, 2005
				First Named Inventor	Thomas H. Barrows
				Group Art Unit	1614
				Examiner Name	Unknown
Sheet	5	of	5	Attorney Docket Number	010414-9012-US00

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS		
Examiner Initials		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
		TAKEDA, A. et al., "Reconstitution of hair follicles by rotation culture," Hair Research for the Next Millennium, eds. Van Neste and Randall, Elsevier Science BV (1996) 191-193
		TSONIS, P.A. Limb Regeneration, Cambridge University Press, Cambridge (1996) 241
		WIDELITZ, R.B. and CHUONG, C-M., "Early events in skin appendage formation: Induction of epithelial placodes and condensation of dermal mesenchyme," J Invest Dermatol Sympos Proc (1999) 4(3):302-306
		WILLIAMS, D. et al., "Isolation and culture of follicular papillae from murine vibrissae: an introductory approach," Br. J. Dermatol. (1994) 130:290-297
		XING, L and KOBAYASHI, K., "Ability of Transplanted Cultured Epithelium to Respond to Dermal Papillae," Tissue Engineering (2001) 7:535-544
		Atlas of Anatomy Barron's Educational Series, Inc., 1997, Page 72

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231.
DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.